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(54) **Method of depositing an amorphous carbon layer**

(57) A method of forming an integrated circuit using an amorphous carbon film. The amorphous carbon film is formed by thermally decomposing a gas mixture comprising a hydrocarbon compound and an inert gas. The amorphous carbon film is compatible with integrated circuit fabrication processes. In one integrated circuit fabrication process, the amorphous carbon film is used as

a hardmask. In another integrated circuit fabrication process, the amorphous carbon film is an anti-reflective coating (ARC) for deep ultraviolet (DUV) lithography. In yet another integrated circuit fabrication process, a multi-layer amorphous carbon anti-reflective coating is used for DUV lithography.

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EUROPEAN SEARCH REPORT

Application Number
EP 01 10 2401

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 27 May 2004	Examiner Bakker, J
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